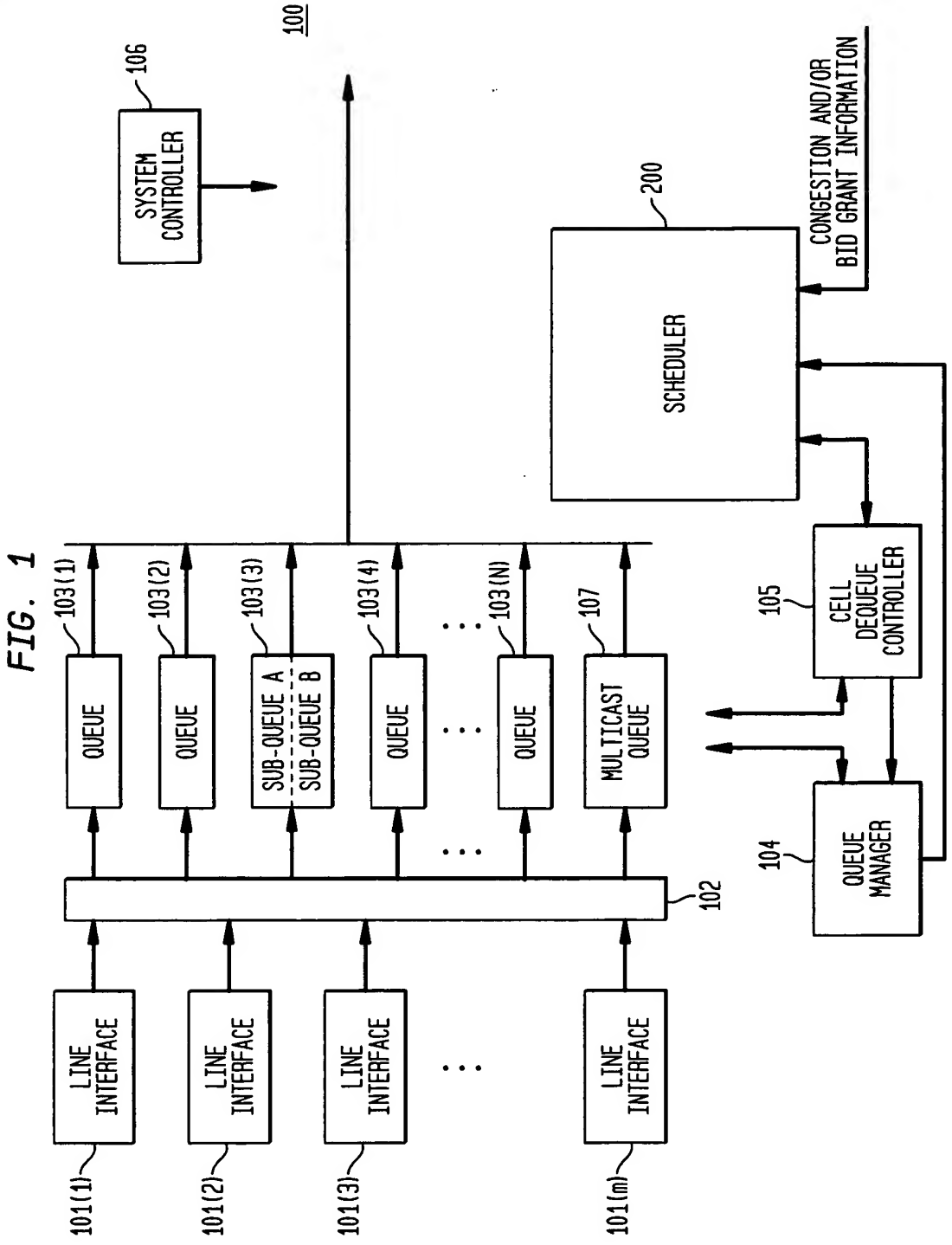
Replacement Sheet

OIPE
NOV 15 2006
PATENT & TRADEMARK OFFICE

FIG. 1



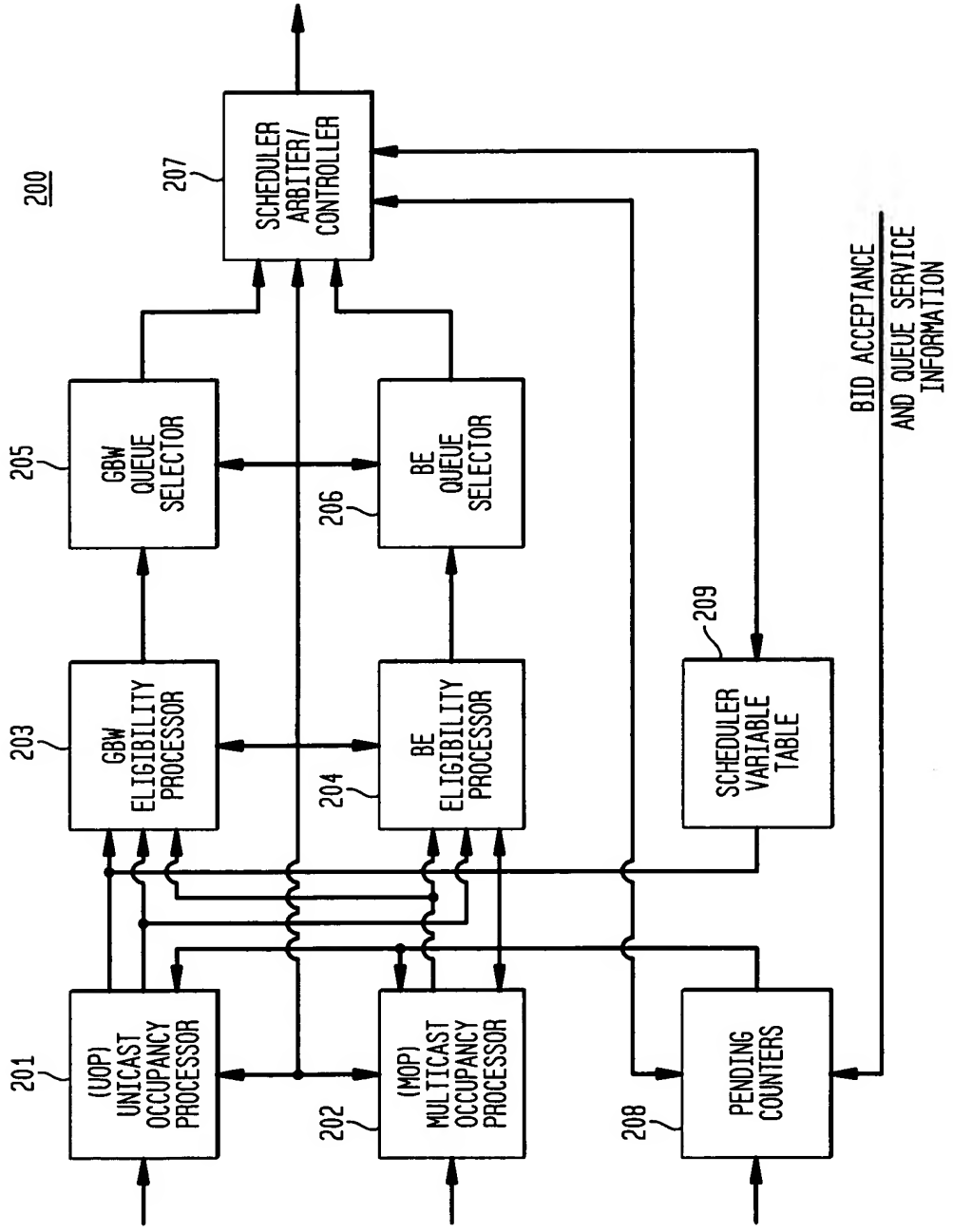

200
207
SCHEDULER ARBITER/ CONTROLLER
205
GBW QUEUE SELECTOR
206
BE QUEUE SELECTOR
203
GBW ELIGIBILITY PROCESSOR
204
BE ELIGIBILITY PROCESSOR
209
SCHEDULER VARIABLE TABLE
201
(UOP) UNICAST OCCUPANCY PROCESSOR
202
(MOP) MULTICAST OCCUPANCY PROCESSOR
208
PENDING COUNTERS
BID ACCEPTANCE AND QUEUE SERVICE INFORMATION

FIG. 2

FIG. 3

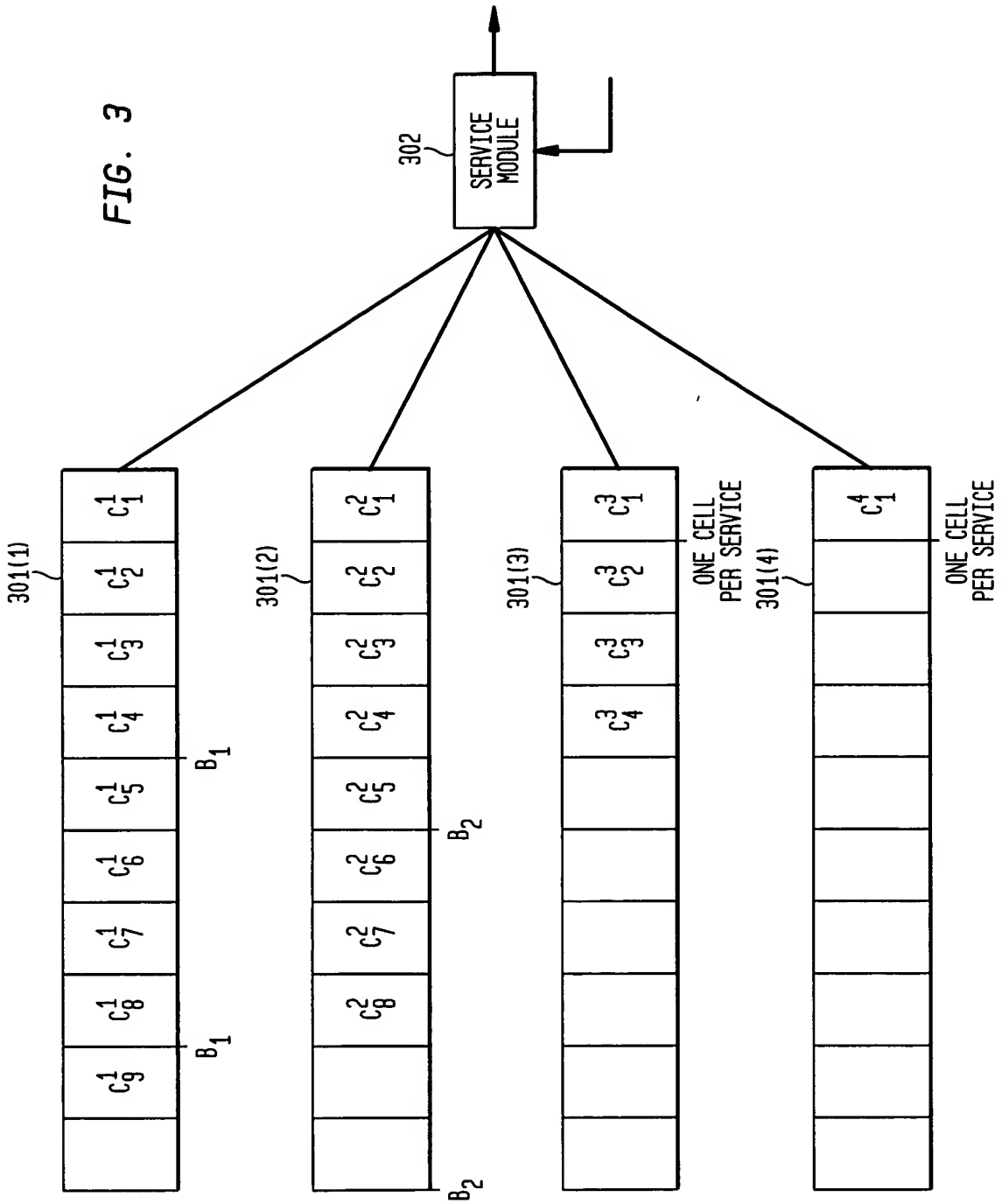

302
SERVICE MODULE
301(1)
301(2)
301(3)
301(4)
c_1^1 c_2^1 c_3^1 c_4^1 c_5^1 c_6^1 c_7^1 c_8^1 c_9^1
c_1^2 c_2^2 c_3^2 c_4^2 c_5^2 c_6^2 c_7^2 c_8^2
c_1^3 c_2^3 c_3^3 c_4^3
c_1^4
B_1
B_1
B_2
B_2
ONE CELL PER SERVICE
ONE CELL PER SERVICE

FIG. 4

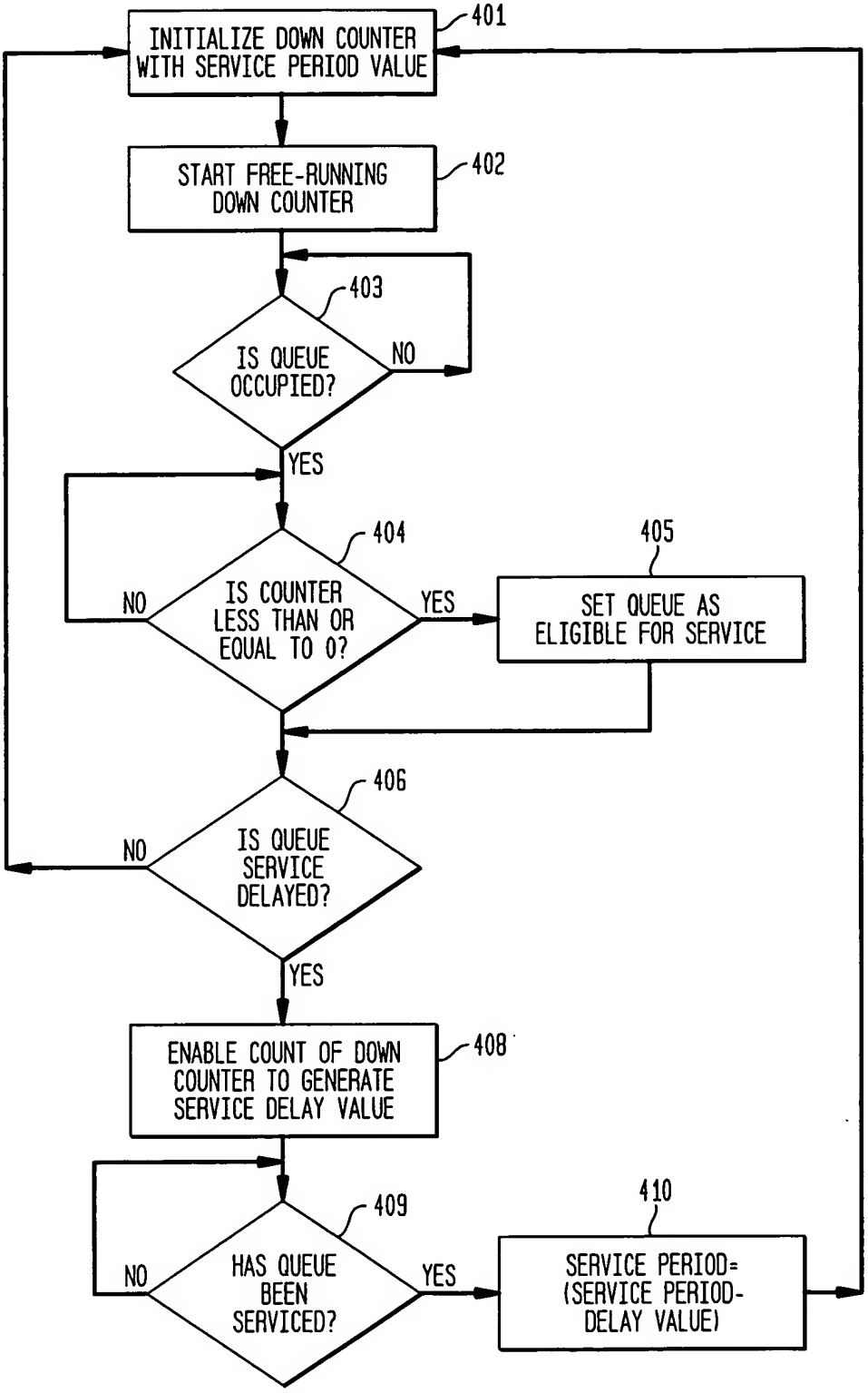

INITIALIZE DOWN COUNTER WITH SERVICE PERIOD VALUE
401
START FREE-RUNNING DOWN COUNTER
402
IS QUEUE OCCUPIED?
403
NO
YES
IS COUNTER LESS THAN OR EQUAL TO 0?
404
NO
YES
SET QUEUE AS ELIGIBLE FOR SERVICE
405
IS QUEUE SERVICE DELAYED?
406
NO
YES
ENABLE COUNT OF DOWN COUNTER TO GENERATE SERVICE DELAY VALUE
408
HAS QUEUE BEEN SERVICED?
409
NO
YES
SERVICE PERIOD= (SERVICE PERIOD-DELAY VALUE)
410

FIG. 5A

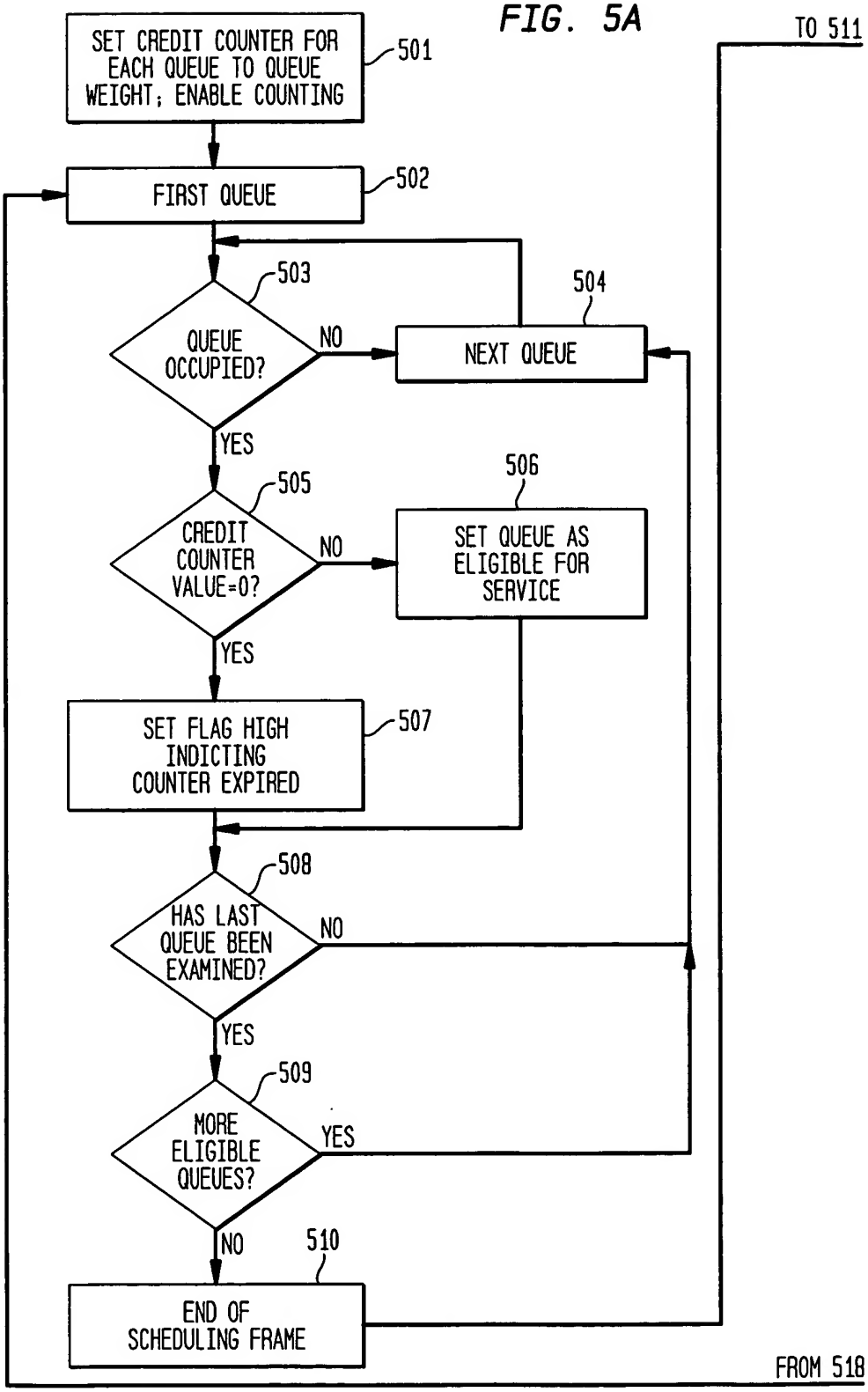
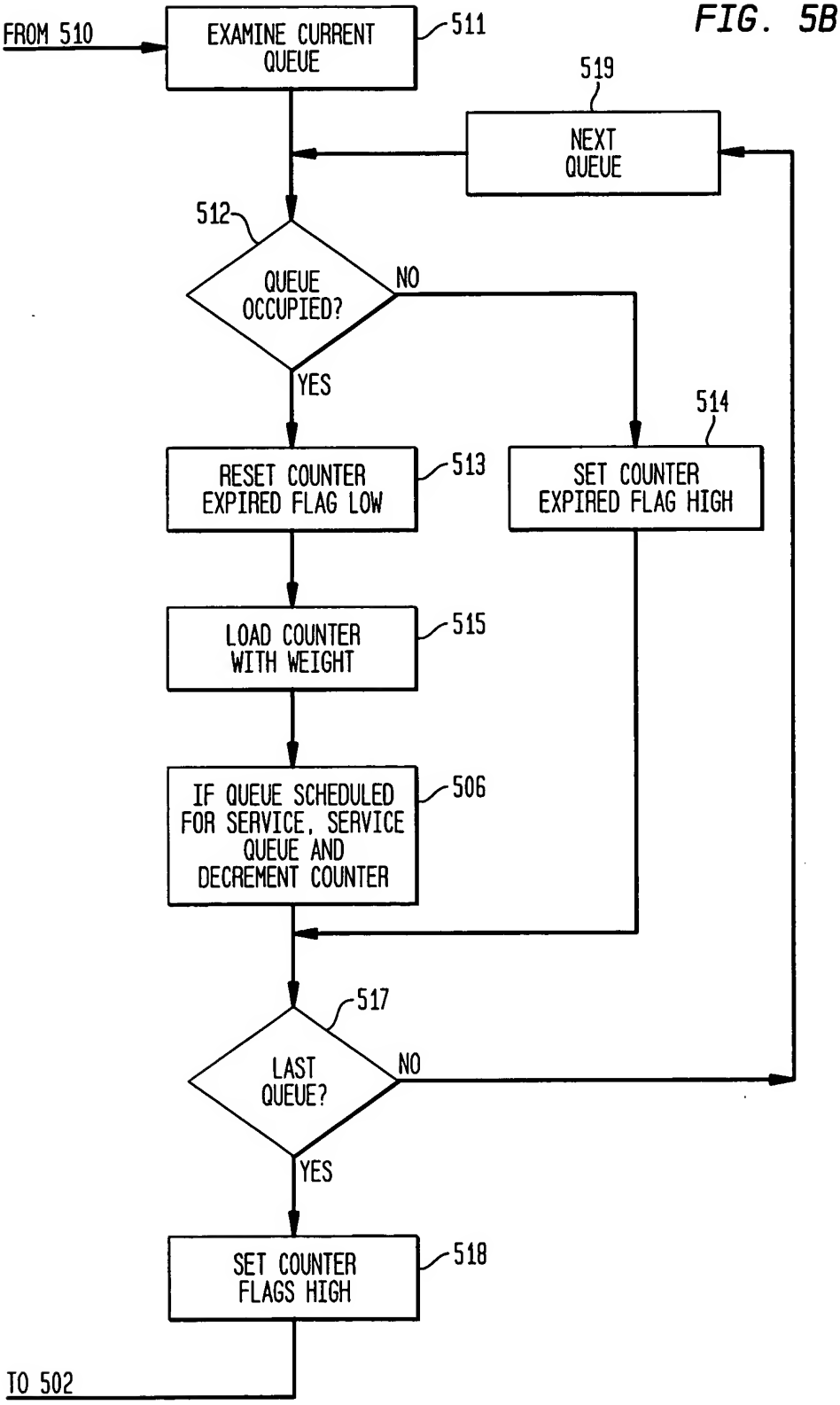

SET CREDIT COUNTER FOR EACH QUEUE TO QUEUE WEIGHT; ENABLE COUNTING
501
FIRST QUEUE
502
503
QUEUE OCCUPIED?
NO
504
NEXT QUEUE
YES
505
CREDIT COUNTER VALUE=0?
NO
506
SET QUEUE AS ELIGIBLE FOR SERVICE
YES
SET FLAG HIGH INDICTING COUNTER EXPIRED
507
508
HAS LAST QUEUE BEEN EXAMINED?
NO
YES
509
MORE ELIGIBLE QUEUES?
YES
NO
510
END OF SCHEDULING FRAME
TO 511
FROM 518

FIG. 5B


FROM 510
EXAMINE CURRENT QUEUE
511
519
NEXT QUEUE
512
QUEUE OCCUPIED?
NO
YES
514
RESET COUNTER EXPIRED FLAG LOW
513
SET COUNTER EXPIRED FLAG HIGH
LOAD COUNTER WITH WEIGHT
515
IF QUEUE SCHEDULED FOR SERVICE, SERVICE QUEUE AND DECREMENT COUNTER
506
517
LAST QUEUE?
NO
YES
SET COUNTER FLAGS HIGH
518
TO 502

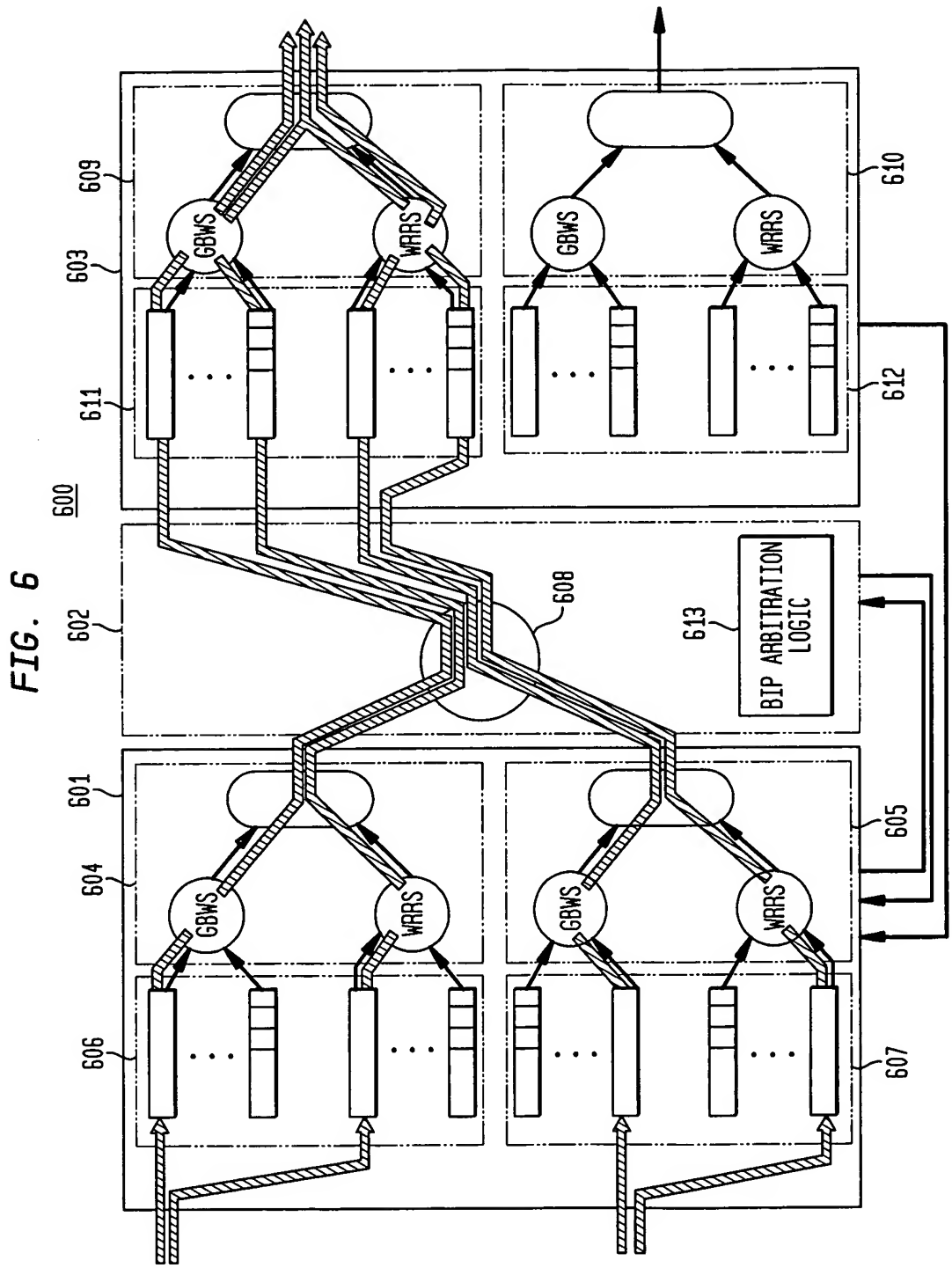

600
601
602
603
604
605
606
607
608
609
610
611
612
613
GBWS
WARS
BIP ARBITRATION LOGIC

FIG. 6